

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: E-4-117

Name: US 40 over Little Catatan Creek

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended <u>X</u>	Eligibility Not Recommended _____
Criteria: <u> </u> A <u> </u> B <u> </u> C <u> </u> D Considerations: <u> </u> A <u> </u> B <u> </u> C <u> </u> D <u> </u> E <u> </u> F <u> </u> G <u> </u> None	
Comments: _____ _____ _____	
Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u>3 April 2001</u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u>3 April 2001</u>

MHT Number F-4-117

Location:

Street/Road Name and Number: US 40 (National Pike)

City/Town: Myersville **Vicinity** X

County: Frederick

Ownership: X State County Municipal Other

This bridge projects over: __Road__Railway__X Water__Land

Is the bridge located within a designated district: yes ☒ no

_NR listed district_NR determined eligible district

_locally designated_other

Name of District

Bridge Type:

Timber Bridge

Beam Bridge Truss-Covered Trestle

Timber-and-Concrete

Stone Arch

Metal Truss

Movable Bridge

_Swing _Bascule Single Leaf _Bascule Multiple Leaf

_Vertical Lift_Retractable_Pontoon

___Metal Girder

__Rolled Girder__ __Rolled Girder Concrete Encased__

Plate Girder Plate Girder Concrete Encased

Metal Suspension

Metal Arch

Metal Cantilever

X Concrete

X Concrete Arch __ Concrete Slab __ Concrete Beam

Rigid Frame

Other Type Name_____

Describe Setting:

Bridge 10032 carries US 40 over Little Catoctin Creek in Frederick County. US 40 runs east-west over the northern flowing Little Catoctin Creek. The bridge is in an area that has limited residential and commercial development.

Describe Superstructure and Substructure:

Bridge 10032 is a single-span filled concrete arch bridge. The exterior of the bridge is faced in stone. The length of the bridge is 67 feet with a clear span of 38 feet. The rise is approximately 12 feet. The abutments are concrete and are approximately 24 feet wide and 10 feet high. Each abutment has 2 wingwalls; the eastern walls are 38 feet wide while the western walls are 45 feet wide. The arch has 3-foot solid concrete parapets faced with granite. There is a clear roadway width of 40 feet, with an overall width of 44 feet 6 inches. There is light efflorescence on the arch and cracking throughout the mortar. The abutments have cracking on the interior facing and light patching. According to a 1996 inspection report, the bridge is in good condition with a sufficiency rating of 87.6.

Discuss Major Alterations:

There have been no major alterations to this structure.

When Built? 1936

Why Built? Relocation and Widening of US 40 between Frederick and Hagerstown

Who Built? State Roads Commission

Who Designed? State Roads Commission

Why Altered? N/A

Was this bridge built as part of an organized bridge building campaign?

Yes, this bridge was built as part of the relocation and widening of US 40 between Frederick and Hagerstown. Scenic US 40 was originally chartered in 1792 by Maryland as a turnpike from Frederick to Cumberland; it was a segment of the Baltimore-Cumberland Turnpike. The road, eventually known as the National Pike (as distinct from the National Road), was financed by various Maryland banks, and construction began in 1816. The road was completed to Cumberland by 1823. The turnpike ceased operations in 1889, when a storm wrecked bridges on the road, and the bridges were not rebuilt. The road had fallen into disrepair by the early-twentieth century, when the "Good Roads" Act of 1916 provided federal funding for road improvements. The National Pike was designated US 40 in the mid-1920s.

Surveyor Analysis:

This bridge may have NR significance for association with:

☒ **A Events** ☐ **Person**

☒ **C Engineering/Architectural**

This bridge was determined eligible by the Interagency Review Committee February 1996

Was this bridge constructed in response to significant events in Maryland or local history?

In 1936 and 1937 several factors including the increase in vehicle registration, mechanical improvements to the vehicle itself, and an increase in mileage traveled put a tremendous strain on the existing road systems. Particularly, this was true of the mechanical improvements; each year cars were built which were capable of higher speeds and trucks were being built capable of higher loads. To meet the requirements of this increased traffic and to provide for future increase, a new arterial system was planned.

The relocation of the National Pike (US 40) between Frederick and Hagerstown did not have at that time sufficient volume to warrant the cost of a dual highway. However, right of way was acquired to permit the

dualization of the highway. The relocated road was constructed in such a way that the 40-foot roadway could become the westbound lane of a dual highway.

The relocation of US 40 included the construction of many highway bridges and culverts. The designers considered the nature of the surrounding terrain and the existing historical landscape. A decision was made to face the prominent structures with granite simulating the area's nineteenth-century stone arches.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

Yes this bridge was built as part of a relocation of US 40. Although there had been a road between Frederick and Hagerstown since 1806 this modern roadway allowed for increased traffic loads. The associated increase in traffic volume after the highway was completed allowed for greater regional development.

Is the bridge located in an area that may be eligible for historic designation?

No the bridge is not located in an area that is eligible for historic designation.

Is the bridge a significant example of its type?

Yes this bridge is a significant example of a single-span concrete arch built during the 1910 to 1940 key period of significance. During this period reinforced concrete structures were characterized by increasing standardization of small slab, beam, frame, and culvert spans. The introduction of special subtypes of reinforced concrete bridges, such as the Luten arch, open spandrel ribbed arch, the rigid-frame bridge and concrete girders built as grade crossing elimination structures allowed for a better use of workers and resources.

Does the bridge retain integrity of the important elements described in the Context Addendum?

Yes this bridge retains integrity of its character defining elements. Although some repairs were made to the wingwall, the barrel, the spandrel walls, the parapets, and the abutments, all are original and have only moderate deterioration.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer and why?

Yes this bridge is a significant example of the State Roads Commission's efforts from 1910 until 1945 to eliminate dangerous geometric alignments. The development of standardized plans helped to facilitate this process.

Should this bridge be given further study before significance analysis is made?

No this bridge should not be given further study.

Bibliography:

County inspection/bridge files _____ SHA inspection/bridge files X

Other (list):

Surveyor:

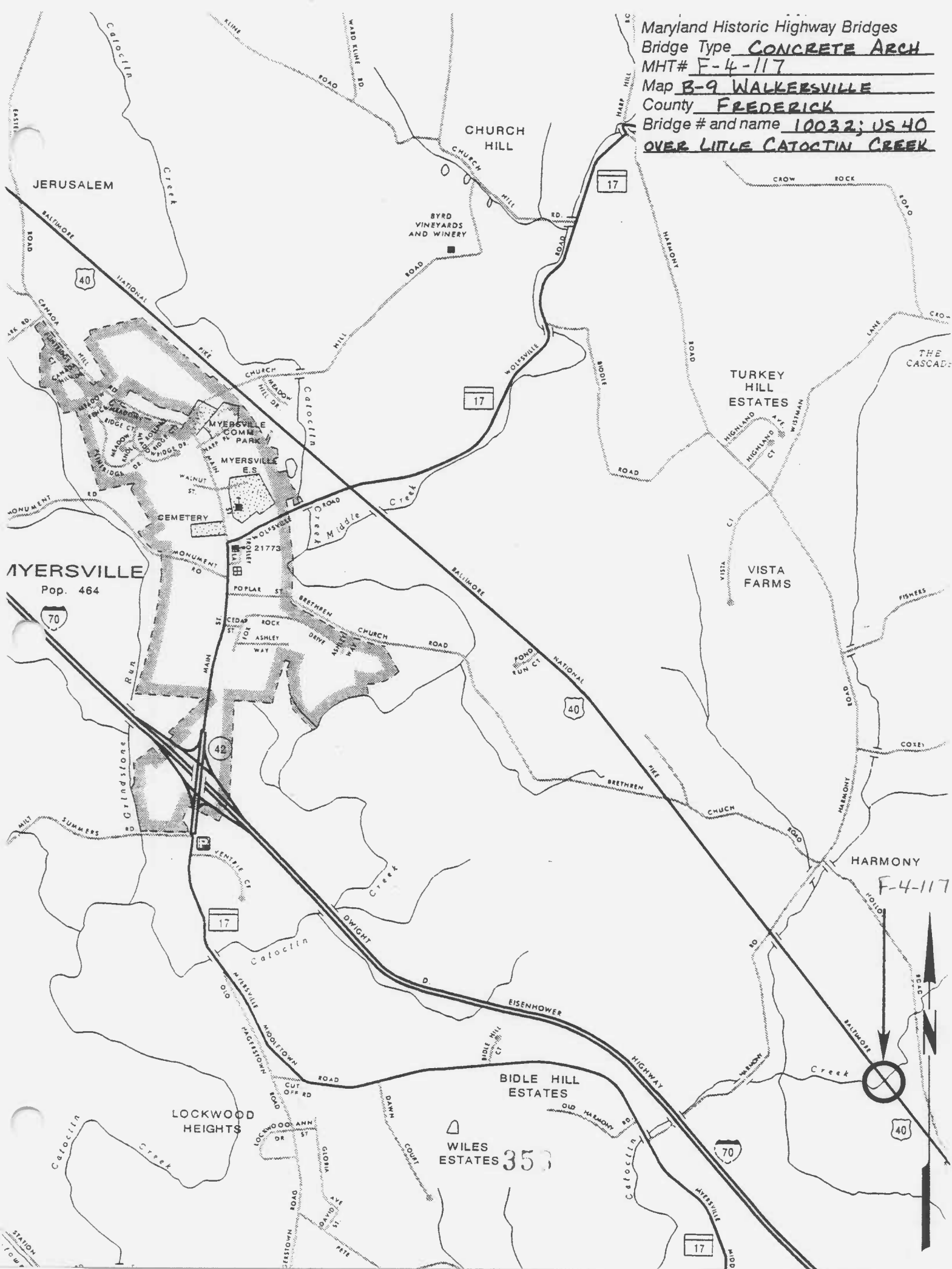
Name: Stacie Y. Webb **Date:** September 1995

Organization: State Highway Admin. **Telephone:** (410) 545-8559

Address: 707 N. Calvert Street, Baltimore, Maryland

Edited by P.A.C. Spero & Company, December 1997

Maryland Historic Highway Bridges
Bridge Type CONCRETE ARCH
MHT# F-4-117
Map B-9 WALKERSVILLE
County FREDERICK
Bridge # and name 10032; US 40
OVER LITTLE CATOCTIN CREEK





Inventory # F-4-117

Name 10032- US 40 OVER LITTLE CATOCTIN CREEK

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH WEST

Number 1 of 364



Inventory # E-4-117

Name 0032 - US40 OVER LITTLE CATOCTIN CREEK

County/State FREDERICK COUNTY MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH EAST

Number 2 of 364



Inventory # F-4-117

Name 10032-US 40 OVER LITTLE CATOCTIN CREEK

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING NORTH

3
Number 21 of 36 4



Inventory # F-4-117

Name 10032-4540 OVER LITTLE CATOCTIN CREEK

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING SOUTH

4
Number 22 of 35 4